ABSTRACT OF THE DISCLOSURE

It is proposed that currently unused portions of transport overhead in frames sent on a high-speed outgoing channel be used to carry error count information from each of four low-speed input channels. At a 4:1 combiner, error monitoring bytes are extracted from transport overhead of frames received on each of the four input channels. Error counts are determined and accumulated for each input channel before being passed to a transport overhead generator for the outgoing channel, where they are inserted as bit patterns in unused portions of the transport overhead. At a receiving demultiplexer, the error counts are extracted from the transport overhead of incoming frames. The extracted error counts are then used to alter the error monitoring bytes included in the transport overhead of frames sent on each of four outgoing channels such that, at the far end of those outgoing channels, a correct number of errors for the three part path may be determined.